

**ABSTRACT**

A communication device is provided for a local enclave. The communication device processes packets to be transferred from the local enclave to a wide area network. The communication device intercepts packets originating from a host on the local enclave, the packets being destined for transmission over the wide area network, extracts predetermined portions from each packet header to form one or more blocks for translation, applies a predetermined encryption algorithm to translate the one or more blocks after masking; and reinserts bits from the translated block back into the packet header. The purpose of the invention is to obfuscate network machine identities to TCP/IP packets traversing the public Internet to prevent traffic mapping.